LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS- No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data		
										Alt** nmi	Incl., deg	Land Rev
1	1	102 1	KSC	4/10/81spd 4/12/81a	101:23:50:00s 102:12:00:03.9a	--------- EAFB	---------- 4/14/81	----------------- 104:18:20:55	------------------ 2:06:20:51	----- 145	------- 40.3	----- 37
2	2	102 2	KSC	10/09/81s 11/04/81rspd 11/12/81a	316:12:20:00s 316:15:00:00s 316:15:09:59.8a	----------- ------ EAFB	----------- -------- 11/14/81	------------------ ---------------- 318:21:23:14	------------------ 5:04:00s 2:06:14:14a	------- ------- 137	----------- ------ 38.0	----- 84s 37a
3	3	102 3	KSC	3/22/82a	081:15:00:00s 081:16:00:59.8a	EAFB WSNMa	---------- 3/30/82	----------------- 89:16:04:48	7:03:25s 8:00:04:48a	----- 128	------- 38.0	116s 130a
4	4	102 4	KSC	6/27/82a	178:14:59:59.8a	EAFB	7/04/82	185:16:09:45	7:01:09:45	172	28.45	113
5	5	102 5	KSC	11/11/82a	315:12:19:00a	EAFB	11/16/82	320:14:33:26	5:02:14:26	160	28.45	82
6	6	099 1	KSC	1/20/83spd 4/04/83a	094:18:30:00a	EAFB	4/09/83	99:18:53:47	5:00:23:47	155	28.45	81
7	7	099 2	KSC	6/09/83rs 6/18/83a	-------------------- 169:11:33:00a	KSCs EAFBa	---------- 6/24/83	------------------ 175:13:57:08	5:23:20s 6:02:24:08a	----- 170	------- 28.45	96s 98a
8	8	099 3	KSC	8/04/83ss 8/20/83rspd 8/30/83a	242:06:15:00s 242:06:32:00a (darkness)	----------- ------ EAFB	----------- -------- 9/05/83	------------------ ---------------- 248:07:40:43 (darkness)	---------------------- ------------- 6:01:08:43	------- ----- 166	----------- ---- 28.45	------- ---- 98

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS- No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data			Land Rev
										Alt** nmi	Incl., deg		
9	9	102 6	KSC	9/30/83spd 11/28/83a	--------------------- 332:16:00:00a	EAFB	12/08/83	------------------ 342:23:47:24	9:11:00 s 10:07:47:24a	----- 135	------- 57.0		146s 167a
10	41B (11	099 4	KSC	1/29/84spd 2/03/84a	--------------------- 034:13:00:00.56a	KSC	2/11/84	------------------ 042:12:15:55	------------------ 7:23:15:54	----- 176	------- 28.45		----- 128
11	41C (13	099 5	KSC	4/04/84spd 4/06/84a	--------------------- 097:13:58:00a	KSCs EAFBa	4/13/84	------------------ 104:13:38:06	6:00:00s 6:23:40:06a	----- 272	------- 28.45		92s 108a
12	41D (14	103 1	KSC	6/25/84spd 6/26/84rspd 8/29/84rspd 8/30/84a	--------------------- 243:12:35:00s 243:12:41:50a	EAFB	9/05/84	249:13:37:55	6:00:56:05	179	28.45		97
13	41G (17	099 6	KSC	10/1/84ss 10/5/84a	279:11:03:00	KSC	10/13/84	287:16:26:39	8:05:23:39	190	57.0		133
14	51A (19	103 2	KSC	11/7/84spd 11/8/84a	----------------------- 313:12:15:00	KSC	11/16/84	321:12:00:01	7:23:45:01	195	28.45		127
15	51C (20	103 3	KSC	1/23/85spd 1/24/85a	----------------------- 024:19:50:00.96	KSC	1/27/85	027:21:23:29	3:01:33:28a	N/A	28.45		49
16	51D (23	103 4	KSC	3/19/85rs 3/28/85rs 4/12/85a	102:13:04:00s 102:13:59:05a	KSC	4/19/85	109:13:54:33	5:00:11:00s 6:23:55:28a	----- 251	------- 28.45		79s 110a

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Alt** nmi	Incl., deg	Land Rev
17	51B (24	099 7	KSC	4/29/85	119:16:00:00s 119:16:02:19a	--------- EAFB	---------- 5/6/85	---------------- 126:16:11:13 a	6:20:58:00s 7:00:08:54a	----- 193	------- 57.0	109s 111a
18	51G (25	103 5	KSC	6/17/85	168:11:33:00.70a	EAFB	6/24/85	175:13:12:00	7:01:39:00	209	28.45	112
19	51F (26	099 8	KSC	7/12/85spd 7/29/85a	----------------------- 210:19:23:00s 210:21:00:00a	EAFB	8/05/85 08/06/85	218:19:45:27	7:22:45:27	173	49.5	110s 127a
20	51I (27	103 6	KSC	8/24/85spd 8/25/85rspd 8/27/85a	----------------------- 239:10:55:00s 239:10:58:01.54a	EAFB	9/03/85 09/04/85	246:13:15:46	7:02:17:44	242	28.45	127s 112a
21	51J (28	104 1	KSC	10/3/85	276:15:15:31	EAFB	10/7/85	280:17:00:12	4:02:44:41	278	28.5	64
22	61A (30	099 9	KSC	10/30/85	303:17:00:00	EAFB	11/6/85	310:17:44:53	7:00:44:53	180	57.0	112
23	61B (31	104 2	KSC	11/26/85	331:00:29:00 (Darkness)	EAFB	12/3/85	337:21:33:54	6:21:04:54	209	28.45	109
24	61C (32	102 7	KSC	12/18/85spd 12/19/85spd 1/6/86spd 1/7/86spd 1/9/86spd 1/10/86spd 1/12/86a	----------------------- ----------------------- ----------------------- ----------------------- ----------------------- -------------- 012:11:55:00.96	KSCs EAFBa	1/17/86s 1/18/86a	---------------- 018:13:58:53 (predawn)	--------------------- 6:02:03:53	------ 185	-------- 28.45	----- 98

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
25	51L (33	099 10	KSC	1/23/86spd 1/24/86spd 1/25/86spd 1/26/86spd 1/27/86spd 1/28/86spd 1/28/86a	------------------------- ------------------------- ------------------------- ------------------------- ----------- 028:14:38:00s 028:16:38:00a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	26	103 7	KSC	9/29/88a	273:13:59:00s 273:15:37:00a	EAFB	10/3/88	277:16:37:12	4:01:00:12	178	28.5	64
27	27	104 3	KSC	12/1/88rspd 12/2/88a	336: (classified)s 337:14:30:33.98a	EAFB	12/6/88	341:23:36:11	4:09:05:37	N/A DOD	57.0	N/A DOD
28	29	103 8	KSC	3/13/89a	072:13:11:00s 072:14:57:00a	EAFB	3/18/89	077:14:35:49	4:23:38:49	163	28.45	80
29	30	104 4	KSC	4/28/89rspd 5/04/89a	118:18:24:00s 124:17:47:00s 124:18:46:59a	EAFB	5/8/89	128:19:43:25	4:00:56:26	161	28.85	65
30	28	102 8	KSC	8/8/89a	220(Classified)s 220:12:37:00a	EAFB	8/13/89	225:13:37:08	5:01:00:08	166	57.00	81
31	34	104 5	KSC	10/12/89rspd 10/17/89rspd 10/18/89a	285:17:12:29s 290:16:57:00s 291:16:53:40a	EAFB	10/23/89	296:16:33:01	4:23:39:21	177	34.30	80
32	33	103 9	KSC	11/22/89a	327(Classified)s 327:00:23:29.98a	EAFB	11/28/89	332:00:30:18	5:00:06:48	302	28.45	79

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss. Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Alt** nmi	Incl., deg	Land Rev
33	32	102 9	KSC	12/18/89pd 1/8/90pd 1/9/90a	----------------------------- -------------- 009:12:35:00a	EAFB	1/20/90	020:09:35:36 (darkness)	10:21:00:36	178	28.50	172
34	36	104 6	KSC	2/22/90pd 2/28/90a	059:07:50:22a	EAFB	3/4/90	063:18:08:44	4:10:18:22	132	62.00	72
35	31	103 10	KSC	4/10/90pd 4/24/90pd 4/24/90a	114:12:31:00s 114:12:33:50.99a	EAFB	4/29/90	119:13:49:57	5:01:16:06	330	28.45	80
36	41	103 11	KSC	10/06/90a	279:11:35:00s 279:11:45:43pd 279:11:45:53pd 279:11:47:14.98a	EAFB	10/10/90	283:13:57:19	4:02:10:04	160	28.45	66
37	38	104 7	KSC	11/15/90a	319(classified)s 319:23:48:15.006a	EAFBs KSCa	11/20/90	324:21:42:46	4:21:54:31	142	28.5	79
38	35	102 10	KSC	5/30/90rspd 9/01/90 rspd 9/06/90rspd 9/18/90rspd 12/2/90a	336:06:28:00s 336:06:49:01.02a	EAFB	12/11/90	345:05:54:09 (darkness)	8:23:05:08	190	28.45	144
39	37	104 8	KSC	4/5/91spd 4/5/91a	095:14:18:00s 095:14:22:44.988a	EAFB	4/11/91	101:13:55:29	05:23:32:44	248	28.45	93
40	39	103 12	KSC	4/23/91rspd 4/28/91a	118:11:01:00s 118:11:33:14.018a	EAFBs KSCa	5/6/91	126:18:55:37	08:07:22:23	140	57.0	134

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data		
										Alt** nmi	Incl., deg	Land Rev
41	40	102 11	KSC	5/22/91rspd 6/1/91rspd 6/5/91a	156:12:00:00s 156:13:24:51.691a	EAFB	6/14/91	165:15:39:12	09:02:14:20	157	39.0	146
42	43	104 9	KSC	7/24/91spd 8/01/91spd 8/02/91a	214:15:01:59.986a	KSC	8/11/91	223:12:23:25	08:21:21:25	174	28.45	142
43	48	103 13	KSC	9/12/91a	255:22:57:00s 255:23:11:04.005a	KSCs EAFBa	9/18/91	261:07:38:42 (darkness)	05:08:27:38	313	57.0	81
44	44	104 10	KSC	11/19/91rspd 11/24/91a	-------------------- 328:23:31:00s 328:23:44:00.006a	KSCs EAFBa	12/1/91	---------- 335:22:34:44	------------------ 06:22:50:44	----- 197	------- 28.5	----- 110
45	42	103 14	KSC	1/22/92pd 1/22/92pd	022:13:53:00s 022:14:52:32.992	EAFB	1/30/92	030:16:07:17	08:01:14:44	163	57.0	129
46	45	104 11	KSC	3/23/92rs 3/24/92a	084:13:00:00s 084:13:13:39.991	KSC	4/2/92	093:11:23:08	08:22:09:28	160	57.0	143
47	49	105 1	KSC	5/7/92a	128:23:06:00s 128:23:40:00.019	EAFB	5/16/92	137:20:57:38	08:21:17:38	195	28.35	141
48	50	102 12	KSC	6/25/92pd 6/25/92a	177:16:07:00s 177:16:12:22.997a	KSC	7/9/92	191:11:42:27	13:19:30:04	160	28.45	221

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
49	46	104 12	KSC	7/31/92pd 7/31/92a	213:13:56:00s 213:13:56:48.011a	KSC	8/8/92	221:13:11:51	07:23:15:03	230	28.45	127
50	47	105 2	KSC	9/12/92a	256:14:23:00.010a	KSC	9/20/92	264:12:53:23	07:22:30:23	166	57.0	126
51	52	102 13	KSC	10/22/92pd 10/22/92a	196:15:16:00s 296:15:16:00s 296:17:09:39.007a	KSC	11/1/92	306:14:05:52	09:20:56:13	163	28.45	159
52	53	103 15	KSC	12/2/92pd 12/2/92a	337:11:59:00s 337:13:23:59.993a	KSCs EAFBa	12/9/92	344:20:43:47	07:07:19:47	174	57.0	116
53	54	105 3	KSC	1/13/93pd 1/13/93a	013:13:52:00s 013:13:59:29.989a	KSC	1/19/93	019:13:37:49	05:23:38:19	165	28.45	96
54	56	103 16	KSC	4/6/93rspd 4/8/93a	-------------------- 098:05:28:59.986a	KSC	4/17/93	107:11:37:23	09:06:08:23	160	57.0	148
55	55	102 14	KSC	3/22/93rspd 4/24/93rspd 4/26/93a	-------------------- 116:14:50:00.016a	KSCs EAFBa	5/6/93	126:14:29:59	09:23:39:59	163	28.45	160
56	57	105 4	KSC	6/20/93rspd 6/21/93pd 6/21/93a	172:13:07:00s 172:13:07:21.989a	KSC	7/1/93	182:12:52:16	09:23:44:54	252	28.45	155

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data		
										Alt** nmi	Incl., deg	Land Rev
57	51	103 17	KSC	7/17/93rspd 7/24/93rspd 8/12/93rspd 9/10/93rspd 9/12/93a	-------------------- 255:11:45:00.006	--------- KSC	---------- 9/22/93	----------------- 265:07:56:11	------------------ 09:20:11:11	----- 160	------- 28.45	----- 157
58	58	102 15	KSC	10/14/93rspd 10/15/93rspd 10/18/93pd 10/18/93a	291:14:53:00s 291:14:53:10.009a	EAFB	11/1/93	305:15:05:42	14:00:12:32	155	39	225
59	61	105 5	KSC	12/1/93rspd 12/2/93a	-------------------- 336:09:26:59.983	--------- KSC	---------- 12/12/93	------------------ 347:05:25:37	------------------ 10:19:58:37	----- 321	------- 28.45	----- 163
60	60	103 18	KSC	2/3/94a	034:12:10:00.000	KSC	2/11/94	042:19:19:22	08:07:09:22	191	57	130
61	62	102 16	KSC	3/3/94rspd 3/4/94a	063:13:53:00.009	KSC	3/18/94	077:13:09:41	13:23:16:41	163	39	224
62	59	105 6	KSC	4/8/94rspd 4/9/94a	099:11:05:00.020	KSCs	4/20/94	110:16:54:30	11:05:49:30	121	57	183
63	65	102 17	KSC	7/8/94a	189:16:43:00.013	KSC	7/23/94	204:10:38:00	14:17:55:00	160	28.45	235
64	64	103 19	KSC	9/9/94a	252:20:30:00s 252:22:22:54.982a	EAFB	9/20/94	263:21:12:52	10:22:49:57	140	57	176

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS- No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data		
										Alt** nmi	Incl., deg	Land Rev
65	68	105 7	KSC	8/18/94pd 9/30/94a	--------------------- 273:11:16:00.011	EAFB	10/11/94	------------------ 284:17:02:08	------------------ 11:05:46:08	----- 120	----- 57	----- 182
66	66	104 13	KSC	11/03/94pd 11/03/94a	307:16:56:00s 307:16:59:43.004a	EAFB	11/14/94	318:15:33:45	10:22:34:02	164	57	174
67	63	103 20	KSC	02/02/95pd 02/03/95a	--------------------- 034:05:22:03.994	KSC	2/11/95	------------------ 042:11:50:19	-------------------- 08:06:28:15	----- 213	----- 51.6	----- 129
68	67	105 8	KSC	03/02/95pd 03/02/95a	061:06:37:00s 061:06:38:12.989a	EAFB	3/18/95	077:21:47:01	16:15:08:48	187	28.45	262
69	71	104 14	KSC	06/23/95rspd 06/24/95rspd 06/27/95a	178:19:32:18.988	KSC	7/7/95	188:14:54:36	09:19:22:17	213	51.6	154
70	70	102 21	KSC	07/13/95a	194:13:41:00s 194:13:41:55:020	KSC	7/22/95	203:12:02:02	08:22:20:07	160	28.45	143
71	69	105 9	KSC	08/03/95rspd 08/31/95rspd 09/07/95a	250:15:08:59:995	KSC	09/18/95	261:11:37:56	10:20:28:56	215	28.45	170
72	73	102 18	KSC	09/28/95rspd 10/05/95rspd 10/06/95rspd 10/07/95rspd 10/14/95rspd 10/15/95rspd 10/19/95rspd 10/20/95a	293:13:53:00:013	KSC	11/5/95	309:11:45:22	15:21:52:22	150	39	255

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
73	74	104 15	KSC	11/11/95rspd 11/12/95a	316:12:30:43:013	KSC	11/20/95	324:17:01:29	08:04:30:46	213	51.6	128
74	72	105 10	KSC	1/11/96a	011:09:18:00s 011:09:41:00.015a	KSC	1/20/96	020:07:41:45	08:22:00:45	167	28.45	142
75	75	102 19	KSC	2/22/96a	053:20:18:00.004	KSC	3/9/96	069:13:58:21	15:17:40:21	173	28.45	252
76	76	104 16	KSC	3/22/96a	082:08:13:03.999	EAFB	3/31/96	091:13:28:57	09:05:15:53	216	51.6	145
77	77	105 11	KSC	5/19/96a	140:10:30:00.009	KSC	5/29/96	150:11:09:24	10:00:39:24	154	39	161
78	78	102 20	KSC	6/20/96	172:14:49:00.019	KSC	7/7/96	189:12:36:36	16:21:47:36	150	39	272
79	79	104 17	KSC	9/16/96	260:08:54:48.991	KSC	9/26/96	270:12:13:13	10:03:18:24	213	51.6	160
80	80	102 21	KSC	11/19/96	324:19:53:003 324:19:55:46.990a	KSC	12/7/96	342:11:49:06	17:15:53:19	190	2845	278

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
81	81	104 18	KSC	1/12/97a	012:09:27:22.984a	KSC	1/22/97	022:14:22:46	10:04:55:23	213	51.6	161
82	82	103 22	KSC	2/11/97	042:08:55:17.017	KSC	2/21/97	052:08:32:24	09:23:37:07	320	28.45	150
83	83	102 22	KSC	4/3/97s 4/4/97a	094:19:18:00s 094:19:20:32.019a	KSC	4/8/97	098:18:33:11	03:23:12:39	160	28.45	64
84	84	104 19	KSC	5/15/97a	135:08:07:48.003a	KSC	5/24/97	144:12:23:33	09:05:19:56	213	51.6	145
85	94	102 23	KSC	7/1/97a	182:18:01:59.993a	KSC	7/16/97	198:10:46:36	15:10:44:36	160	28.45	251
86	85	103 23	KSC	8/7/97a	219:14:41:00.013a	KSC	8/19/97	231:11:08:00	11:20:27:00	160	57	190
87	86	104 20	KSC	9/25/97a	269:02:34:19.000a	KSC	10/6/97	279:21:55:12	10:19:20:53	213	51.6	170

*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in Nov. 1996.